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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/760,135 | 01/16/2004 | Reiner Hammerich | 13913-193001 / 2001P00021 | 7210 |
| 32864 | 7590 | 09/07/2007 | EXAMINER | |
| FISH & RICHARDSON, P.C. PO BOX 1022 MINNEAPOLIS, MN 55440-1022 | | | TSUI, WILSON W | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2178 | |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/760,135 | HAMMERICH ET AL. | |
| | Examiner | Art Unit | |
| | Wilson Tsui | 2178 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 June 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 May 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is in response to the RCE filed on: 06/15/2007.
2. Claims 1, 9, 13, 15, 16, and 18 are amended. Claims 1, 13, and 16 are independent claims. Claims 1-18 are pending.
3. Prior 35 USC 101 rejections with respect to claims 1-12 are withdrawn in view of applicant's amendment.
4. The 35 USC 103(a) rejections with respect to Claims 1-5, 9-13, and 18 rejected under 35 U.S.C. 103(a) as being unpatentable over Sheard et al in further view of Goodwill and Leech, claim 6 rejected under 35 U.S.C. 103(a) as being unpatentable over Sheard et al, Goodwill, and Leech in further view of Burd et al, claim 7 rejected under 35 U.S.C. 103(a) as being unpatentable over Sheard et al, Goodwill, and Leech in further view of Lindhorst et al, and claims 8, 14, and 17 rejected under 35 U.S.C. 103(a) as being unpatentable over Sheard et al, Goodwill and Leech in further view of Jeyaraman; are withdrawn, in view of new grounds of rejection, necessitated by applicant's amendment.

Drawings

5. The drawings filed on: 05/10/2004 are accepted.

Priority

6. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d).

Claim Rejections - 35 USC § 103

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The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-6, 9-13, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sheshadri ("Understanding JavaServer Pages Model 2 architecture", published: December 1999, pages 1-14), in view of Bahrs (US Patent: 6,654,932 B1, issued: Nov. 25, 2003, filed: Oct. 29, 1999) and further in view of Leech (4GuysFromRolla.com, published: March 3, 2003, pages 1-5).

Seshadri teaches:

Providing a server-side framework to an application (Figure 2: whereas a server-side frame work comprising a model/javabean, and view/jsp are provided to the application/servlet) *the server side framework being external to the application* (Figure 2: whereas, the application, is represented by the servlet, and the JSP (controller) and Javabean framework are server side elements that are external to the JSP/controller).

The frame work supporting predefined data types, each data type having a predefined rule (listing 3, and 4: whereas, the framework supports predefined datatypes, such as string or float datatypes, in a CD object. Each datatype includes an instruction/rule, for the datatype(s) to be initialized with values).

Receiving from an application a request for an object (Listing 3: whereas a getcd function/method is called to request a CD object running on a server), *the request*

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indicating one of the multiple predefined data types (P9-L7: whereas, the getCD function/method therefore further indicates one of a multiple predefined data types, such as strings or floats for initialization), the object storing a value of the indicated data type, the value being stored in the object in a transfer format, and in a process format, the process format being different from the transfer format (P9-L7, P9-1: whereas, the CD object stores a value of the indicated data type in a transfer format (string), and a process format (whereas as the setPrice function casts the price data type (in string format); to a float format), and stored in a CD object as shown in Listing 4).

Creating the object in response to the request (P9-L17: whereas a CD object is created in response to the request).

Generating a markup language page that includes the value in the transfer format read from the object (Listing 2: whereas the values in a CD object are displayed, by inserting the CD attributes in the transfer format/string/ascii into a web page template)

Sending a markup language page to a browser on a client (Figure 4: whereas a markup language page is displayed to a browser on a client)

Receiving a new value in the transfer format from the browser (Listing 3, page 8: whereas a new value is received in the transfer format/string, based on the "ADD" action received)

Storing in the object the new value in the transfer format (P9-L7, P9-1: whereas, the CD object stores a value of the indicated data type in a transfer format (string)), the object automatically converting the new value from the transfer format to the process format

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(Listing 4: whereas, the object automatically stores the float/process format for a price (which was a string in transfer format).

However, Seshadri does not teach

the object automatically checking the compliance of the new value in the process format with the predefined rule, and if the data complies with the predefined rule, forwarding the new value in the process format from the object to the application and otherwise automatically resending the markup language page to the browser with the new value in the transfer format.

Bahrs et al teaches *the object automatically checking the compliance of the new value in the process format with the predefined rule* (Abstract: whereas a validation object automatically checks the compliance of a new value in a process format with a predefined rule by checking against particular criteria (Fig 87: such as through validation rules)). *And if the data complies with a predefined rule, (Fig 86: whereas checking includes whether data complies with a predefined rule), forwarding the new value in a process format to the application* (column 5, lines 8-30, column 16, lines 1-20: whereas, the new value from the user input (such as text data from a text field) is sent/forwarded to an appropriate application) ... *otherwise automatically generating an exception/alternative-action* (Fig 86).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to have modified Sheshadri's object such that the object would have validated input data, as and also such that the object would have further included the ability to forwarded a new value to application, taught by Bahrs et al. The combination of

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Sheshadri and Bahrs et al would have allowed Sheshadri to have in "response to user input, [made] a call to a validation object" (Bahrs et al, column 3, lines 55-63).

However, although the combination of Sheshadri and Bahrs et al teach *otherwise automatically* the combination of Sheshadri and Bahrs et al do not expressly teach *otherwise automatically resending the markup language page to the browser with the new value in the transfer format*.

Leech teaches

... otherwise resending the markup language page to the browser with the data in the transfer format, wherein the application processes the data in the process format (C5:

whereas, there has been at least one rule violation so the client browser is then reloaded with the previously sent form through a redirection command, and the previous transfer data is also reloaded through due to the use of session variables (P5: whereas session variables are used, such that the values of the session are retained through the use of a 'cookie')). Additionally, the application processes the data gathered in the transformed format, and the application's database is correspondingly updated (thus the data is in process format, since the application's database is updated).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to have modified Sheshadri and Bahrs et al's object, such that a markup language page is resent to a browser in a transfer format, as taught by Leech. The combination would have allowed Sheshadri to have to have implemented server-side validation such that "when the user submits the form, the validation script page is run" (Leech, P4).

With regards to claim 2, which depends on claim 1, Sheshadri teaches *wherein the transfer format is a string format*, as similarly explained in the rejection for claim 1, and is rejected under similar rationale.

With regards to claim 3, which depends on claim 1, the combination of Sheshadri, Bahrs et al, and Leech, *the predefined rule*, as similarly explained in the rejection for claim 1. Additionally, Bahrs et al teaches *the predefined rule, is internal to the object*, (as explained in the rejection for claim 1), since it is the object that performs the validating, not a separate/external object/entity.

With regards to claim 4, which depends on claim 1, the combination of Sheshadri, Bahrs et al, and Leech teach *the predefined rule and the object*, as explained in the rejection for claim 1, and is rejected under the same rationale. Additionally, Leech teaches the predefined rule (as explained in the rejection for claim 1), further includes wherein *the predefined rule is external to the object* (P2-P3: whereas, the validation rules are enforced at the client side, which is external to the object).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to have modified Sheshadri, Bahrs et al, and Leech's data system, such that it includes the ability to enforce predefined rules external to the object, as taught by Leech. The combination of Sheshadri, Bahrs et al, and Leech would have allowed Sheshadri's system to have further included the ability let "the user know immediately that something is wrong" (Leech, P3, without having to send the page/form).

With regards to claim 5, which depends on claim 1, Sheshadri similarly teaches *wherein the operations*, as similarly explained in the rejection for claim 1, and is rejected under

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similar rationale. However, Sheshadri does not expressly teach the operations *further comprise storing state information in permanent memory and restoring the object by using the state information*.

Yet, Bahrs et al teaches wherein the operations *further comprise storing state information in permanent memory and restoring the object by using the state information* (column 59, lines 25-30: whereas, operations for storing state information is implemented through serialization, and for restoring state information is implemented through deserialization).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to have modified Sheshadri, Bahrs et al, and Leech's data system, such that state information is stored, and restored for an object, as also taught by Bahrs et al. The combination of Sheshadri, Bahrs et al, and Leech would have allowed Sheshadri to have "returned a previously created object, or otherwise created a new object, and remembering the object" (Bahrs et al, column 29, lines: 40-54).

With regards to claim 6, which depends on claim 5, the combination of Sheshadri, Bahrs et al, and Leech teach *wherein the restoring*, as similarly explained in the rejection for claim 5, and is rejected under similar rationale. Additionally, the restoring that is taught by Bahrs et al (as explained in the rejection for claim 5), further includes the restoring *is delayed until transferring* (column 59, lines 25-39: whereas, the restoring is performed until after the object is transferred to the other end).

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With regards to claim 9, which depends on claim 1, Sheshadri teaches *wherein the object is provided by the software framework running on a server*, as similarly explained in the rejection for claim 1, and is rejected under similar rationale.

With regards to claim 10, which depends on claim 1, Sheshadri, Bahrs et al, and Leech teach *wherein the instructions*, as similarly explained in the rejection for claim 1, and is rejected under similar rationale. Additionally, Bahrs et al further teaches that the data validation system (explained in the rejection for claim 1), further includes the option that the data validation system *do[es] not need to be in a particular programming language* (column 66, lines 50-67: whereas, various types of programming languages can be used to implement the data system of Bahrs et al)

With regards to claim 11, which depends on claim 1, Sheshadri, Bahrs et al, and Leech teach *wherein the operations*, as similarly explained in the rejection for claim 1, and is rejected under similar rationale. Additionally, Bahrs et al, further teaches the operations (as explained in the rejection for claim 1) *do not require any particular flow logic* (column 23, lines 40-67: whereas threading support is implemented, such that events/listeners operate in a concurrent manner, without a strict/sequential order)

With regards to claim 12, which depends on claim 1, Sheshadri, Bahrs et al, and Leech teach *wherein the operations*, as similarly explained in the rejection for claim 1, and is rejected under similar rationale. Additionally Bahrs et al's validation/error-handling scheme, as also explained in the rejection for claim 1, further teaches the validation scheme(s) *do not assume a particular error handling scheme* (whereas, there is no particular single set validation rule, but a plurality of rules that can be set)

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With regards to claim 13, for a method performing a similar method as the product in claim 1, is rejected under the same rationale.

With regards to claim 15, which depends on claim 13, for a method performing a similar method as the product in claim 9, is rejected under the same rationale.

With regards to claim 16, for an apparatus performing a similar method as the product in claim 1, is rejected under the same rationale.

With regards to claim 18, which depends on claim 16, for an apparatus performing a similar method as the product in claim 9, is rejected under the same rationale.

8. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sheshadri ("Understanding JavaServer Pages Model 2 architecture", published: December 1999, pages 1-14), Bahrs (US Patent: 6,654,932 B1, issued: Nov. 25, 2003, filed: Oct. 29, 1999), and Leech (4GuysFromRolla.com, published: March 3, 2003, pages 1-5), in further view of Lindhorst et al (US Patent: 6,981,215 B1, issued: Dec. 27, 2005, filed: Dec. 31, 1998).

With regards to claim 7, which depends on claim 5, Sheshadri, Bahrs et al, and Leech teach *storing state information in permanent memory*, as explained in claim 5, and is rejected under the same rationale. However, the combination of Sheshadri, Bahrs et al, and Leech do not teach the storing of state information in permanent memory is *performed by storing in hidden input fields in the page*

Lindhorst et al teaches the storing of state information in permanent memory is *performed by storing in hidden input fields in the page* (column 14, lines 39-49: whereas, storage/state information is stored in hidden fields in a page).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to have modified Sheshadri, Bahrs et al, and Leech's system for storing state information to further included the ability to store the state information in hidden input fields in a page as taught by Lindhorst et al. The combination of Sheshadri, Bahrs et al, Leech, and Lindhorst et al would have allowed Sheshadri to have "simplified the programmer's task of navigating between pages" (Lindhorst et al, column 6, lines 65-67).

9. Claims 8, 14, and 17 rejected under 35 U.S.C. 103(a) as being unpatentable over Sheard et al (US Patent: 6,453,356 B1, issued: Sep. 17, 2002, filed: Apr. 15, 1998), Goodwill ("Pure Java Server Pages", published: June 08, 2000, Pages: 1-4, 1a, 2a, 3a, 4a, and G1) and Leech (4GuysFromRolla.com, published: March 3, 2003, pages 1-5) in further view of Jeyaraman (US Patent: 6,331,187 B1, issued: Oct. 30, 2001, filed: Dec. 29, 1998).

With regards to claim 8, which depends on claim 1, With regards to claim 8, which depends on claim 1, the combination of Sheshadri, Bahrs et al, and Leech teach *wherein resending the markup language page to the client*, as similarly explained in the rejection for claim 1, and is rejected under similar rationale.

However, Sheshadri, Bahrs et al, and Leech do not teach Identifying a portion of the markup language page that has changed since the markup language page was previously sent; and resending only the portion of the markup language page that has changed.

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Jeyaraman teaches *resending the markup language page to the client includes: identifying a portion of the markup language page that has changed since the markup language page was previously sent* (Abstract: whereas, the identifying includes "determining the differences between the current version of the data at the server and an older copy of the data at the client"); *and resending only the portion of the markup language page that has changed* (Abstract: whereas, the resending includes "using the differences to construct an update for the copy of the data, which may include node insertion and node deletion operations for hierarchically organized nodes in the data; and sending the update to the client where the update is applied to the copy of the data to produce an updated copy of the data").

It would have been obvious to one of the ordinary skill in the art at the time of the invention to have modified Sheshadri, Bahrs et al, and Leech's data persistence/state system to further have included the ability to propagate changes since the markup language page has been sent to the client, as taught by Jeyaraman. The combination of Sheshadri, Bahrs et al, Leech, and Jeyaraman would have allowed Sheshadri's system to have "updated copies of hierarchically structured data" (Jeyaraman, column 1, lines 62-64).

With regards to claim 14, which depends on claim 13, for a method performing a similar method as the product of claim 8, is rejected under the same rationale.

With regards to claim 17, which depends on claim 16, for an apparatus performing a similar method as the product of claim 8, is rejected under the same rationale.

Response to Arguments

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10. Applicant's arguments with respect to claim 1-18 have been considered but are moot in view of the new ground(s) of rejection.

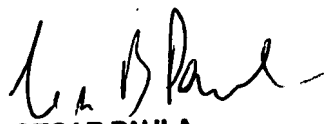
Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wilson Tsui whose telephone number is (571)272-7596. The examiner can normally be reached on Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Hong can be reached on (571) 272-4124. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

W. T. 08/28/07
Wilson Tsui
Patent Examiner
Art Unit: 2178
Aug 28, 2007


CESAR PAULA
PRIMARY EXAMINER